6937

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Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

November 24, 2015

David McMullin
C.S. Mining LLC
P.O. Box 608
Milford, Utah 84751

Subject: Review of Amended Notice of Intention to Commence Large Mining Operations, C.S. Mining LLC, Hidden Treasure Mine, M/001/0067, Beaver County, Utah

Dear Mr. McMullin:

The Division of Oil, Gas and Mining has completed a review of the referenced amendment to the Notice of Intention to Commence Large Mining Operations which was received October 20, 2015. The amendment consists of a geotechnical investigation and pit slope stability assessment summary report for the Maria pit. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. After the notice is determined technically complete, we will ask that you send us two clean copies of the complete and corrected plan.

The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261 or Peter Brinton at 801-538-5258. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB: pnb: eb
Attachment: Review
cc: Ed Ginouves, BLM; eginouve@blm.gov
P:\GROUPS\MINERALS\WP\M001-Beaver\M0010067-HiddenTreasure\final\REV1-6937-11202015.docx

1594 West North Temple, Suite 1210, Salt Lake City, UT 84116
PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

REVIEW OF AMENDED NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

C.S. Mining LLC
Hidden Treasure Mine
M/001/0067
November 24, 2015

General Comments:

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	General	The Notice should be formatted to easily incorporate additional revisions and amendments.	pbb	
2	General	The Division may have additional comments based on the responses to this review. Please attempt to provide a complete, technically adequate submittal.	pbb	
3	General	It is unclear from either the cover page, the document introduction, the document conclusions and recommendations if the purpose of the report is for the operator to request a variance for highwalls. The rule for which a variance is proposed is related to both public safety and possible expansion of post-reclamation disturbance due to slope failures. Statements in the Notice that discuss impacts on slope stability (109.4) and any impact mitigation (109.5), as well as justifying the variance (112), should be consistent with and supported by the stability analysis report and its summary.	lah pnb	
4	Introduction Para1	Please include supporting data and details.	lah	
5	General	The phreatic surface has not been addressed in the introduction. There is additional drill data that has intercepted water. Please include a note in paragraph 1, page 3.	lah	
6	Introduction Para 2	The introduction discusses the "critical east wall," but the current pit is trending at an angle so the current walls are southwest, northeast, northwest or southeast. Please clarify further either by sector or note orientation of the current pit, or perhaps follow figure 3-1. This also occurs page 5.	lah	

R647-4-109 - Impact Assessment

109.4 - Projected impacts on slope stability, erosion control, air quality, public health and safety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
7	Page 1, para 2	The fifth sentence in paragraph 2 incorrectly states that "The east wall of the proposed pit… indicates that the wall is expected to be stable…" No basis for stability is stated. Clarify and correct this discussion to identify conclusions regarding stability of the east wall (or northeast wall), and reference the method used to reach these conclusions.	pnb	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
8	Page 3	On Figure 2-3 the northeast pit wall is shown approximately as written in text. The southwest pit wall between the ramps is shown at approximately the same angle, yet no text discusses the inter-ramp angles (possibly in section 3.2.1 – omission?). The figure should include angles of the highwalls.	lah	
9	Page 3	Identify the highest elevation at which water was encountered during exploratory drilling in the Maria area, and discuss as needed.	pnb	
10	Page 4	Section 3.1- 2nd bullet should indicate if analysis is still valid for slopes over 200 feet in height.	lah	
11	Page 5, para 1	Currently the report states that joint planes dip to the west. Since the characterization of the pit slopes as east/west is unclear and needs correcting (see Comment 6), update the general dip direction of the joint planes and any related conclusions, if needed.	pnb	
12	Page 6 Para1	Please provide the range of values for each of the variables that were included in the rock mass characterization. If the range of values is large then perhaps include the mean and standard deviation. A chart might present the data in a useful format.	lah	
13	Page 6 Para2	The data cited in paragraph 2 should be included in the introduction and in the conclusions.	lah	
14	Page 6, para 3	Identify the vertical distance between the planned pit bottom and the water table.	pnb	
15	Page 6 Para 4	As written "….390 feet." Is the slope analysis still valid for slopes over 390 feet?	lah	
16	Page 7	Where is the stereonet for MGT-2, and the discussion and the recommendations for MGT-2?	lah	
17	Page 9 Sec 3.3.1	The data cited in paragraph 2 on page 6 should be included in the introduction and in the conclusions.	lah	
18	Page 9 Sec 3.3.2	1st bullet – Please expand recommendations for monitoring.	lah	

109.5 - Actions to mitigate any impacts

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
19		Considering the recommendations and uncertainties, any appropriate mitigation actions should be identified in the Notice text.	pnb	